

# THE MINING AND METALLURGICAL JOURNAL.

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LOS ANGELES, CAL., APRIL 15, 1896

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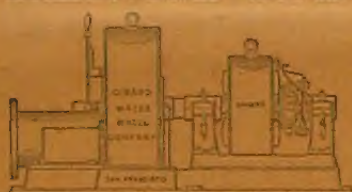
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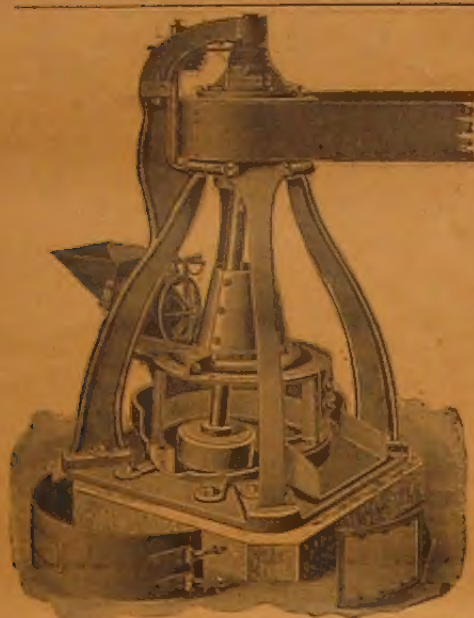
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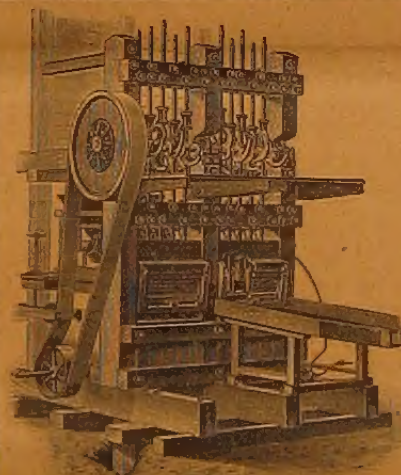
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## WILL IT BE A WALK OVER?

As indicated by the elections of 1894 and '95, it appears as if the Republicans would win easily in the impending political campaign, and it is evident that the leaders of the Republican party are confident that such will be the result. That there will be a change is beyond a peradventure. The sceptre will be wrested from the hands of the administration Democracy. Many causes will contribute to that end. The condition of the country was rarely so desperate as now, in time of profound peace, and the people are seeking a panacea for their ills.

The tariff question will be conspicuous; but the money question will at least be equally so; and on these two subjects the administration is antagonized by the elements which favor protection and an enlargement of the money volume.

Already the Democratic party is disintegrated; the Republicans are holding together better, but there is a wide divergence of views on the money question, which will make itself more manifest after the platform of the national convention has been adopted. If it is for gold as the sole standard, it seems as if the silver men would have to split off; and, if for silver and gold, the goldites will surely bolt and sustain the candidate of the Cleveland Democracy. Should the position be a straddle, neither side will be satisfied, and it is difficult to predict what the outcome will be.

No doubt the protective principle in tariff legislation will be a strong ligature in binding the Republicans together, but the feeling is wide spread that to remove present ills effectually the medicine of an enlarged money volume, to be assured through silver coinage, is required. The people are restless, and are likely to take radical steps to get out of the dilemma in which they are placed.

Whether the dissentient elements in the

two old political organizations can be combined with the populists in the formation of a new party cannot now be stated with certainty. That there will be a new organization of some character is more than probable; also that it will be for the free coinage of both gold and silver, and for their use as redemption of paper money, issued not by banking institutions but by the government itself. Though such a policy is conformable to reason, still the goldites and national bankers will endeavor by every means to frighten the people and prevent its adoption. There has, however, been so much discussion of the money question of late that the people are better informed on the subject than they ever were before. It will be interesting to watch events, and to be ready to accept results quite different from those sought by the gold trust.

## IN A DILEMMA.

The Ohio Republican platform declared for the largest use of both the money metals, and for a money system in which one dollar, whether gold, silver or paper, will be as good as any other dollar. This all sounds well as a platitude, but it requires a very acute intellect to discover just what the platform means. Every dollar of whatever material which is a legal tender by compulsion of law is as good as any other dollar. It is not the material but the law that is behind it which makes the good dollar. That ominous word parity in the money planks precludes any degree of confidence that the policy declared is different from what the Rothschilds-Morgan syndicate would have it.

The eastern Republicans affect to see in the Ohio doctrines the mischief, as they call it, of practical bimetalism, and hence Massachusetts, New York and Rhode Island have been explicit in declaring for the gold standard and against silver coinage unless the European commercial nations will consent. The latter clause might as well not have been inserted, for those eastern Republicans ought to know that Great Britain, the controlling financial power of Europe, will never consent to silver coinage, except the small coins. The declarations in those States really amount to an absolute indorsement of the gold standard.

The question arises what will the Republicans of the mountain and silver States do? The Republicans of the South will follow the lead of the Northeast. Their representative men have no opinions beyond the declarations in the national platforms. It is quite different with the Western Republicans—they are independent. Will they bolt if goldism is thrust upon them? Subsequent events alone will make answer to the question. While the Eastern Republicans are unequivocally monometallists, in making an early declaration of their real sentiments they have an ulterior object in view. McKinley has become dangerously prominent, and the friends of Reed and Morton hold out the golden hand to kill him off. This position on the money question is not acceptable to the East nor to the West, and the tactics are to crush him between these two millstones.

The position of the Eastern Republicans is to be commended for its explicitness. Nothing has so interfered with the progress of the silver cause as the ambiguity of political platforms and declarations of so-called political leaders. Every ambiguity has been consorted on the line of goldism. A well defined issue will the sooner lead to the success of the silver cause. The Eastern Republicans seem de-

termined not to have any doubtful phraseology employed, and we hope the Western Republicans will second their efforts so that the line may be distinctly drawn. The trimmers only will urge ambiguity in order to befog and mislead and prolong the contest between the people and the gold trust.

It does seem that the people of the nation have suffered so much that they cannot hereafter be hoodwinked by platitudes. There has been pretty talk for a long time, but it has produced no relief from business depression and financial distress, and there is nothing promising for the future except in a more generous money system, one that will supply an adequate volume, and that can only be accomplished through broadening the volume of redemption money through silver coinage. The Cleveland-Carlisle plan of leaving the control of the volume of circulating medium will not do it, for if the Government cannot maintain a sufficient volume of paper money on a gold basis, certainly the banks cannot. Beyond this were the banks able would they do it? To suppose they would is contrary to all experience, and he who is at all removed from idiocy can know that bankers are governed by their own interests and disregard those of the public, that a limited, an inadequate volume is to their advantage. The proposition to turn over to a syndicate of bankers the control of money matters is an outrage and an insult to a great and free people. It is a delegation of the functions of government, and the shirking of a public duty. Liberty, or in other words, freedom from oppression can only be assured through retention of all the powers of government in the hands of the people, to be exercised solely by their chosen servants and as they shall be directed by the people. Open the mints to the people and let them supply the basic money, and the government supply the representative money under popular direction.

## OUR SILVER INTERESTS AND LEGISLATION.

Although California is always classed as a gold-producing State, the southern part has been and still is at the present time (even in spite of the low price of silver) a silver producing district, which is capable of yielding still larger amounts if the political, financial or banking conditions were favorable for more extensive efforts on the part of our silver mine owners in the direction of honest labor. Those who have experienced prosperity in this industry in the past are well aware of the fact that from 1793 to 1873, American silver dollars were at a three per cent premium in Europe, and went eastward almost as soon as coined.

The causes which have led to a change in the value of silver have originated partly through the large production of silver on the Comstock and from the amounts produced along with low grade copper ores in North and South America, and in permitting silver to be exported in the form of silver bars, and not as silver coin.

The European causes have to a greater extent aided to depreciate the value of silver, and are the result of the combined action of the "White Jews" of Europe or the owners of large amounts of gold, in securing the cessation of the free coinage of silver in Europe. The owners of large amounts of gold in the United States in a similar manner have combined to depreciate silver and thereby increase the value of gold, and many politicians and some of the press of the country have aided the work, and in all probability were well



paid for so doing, as they have not been working in the interests of the country, but in the interests of the few.

The question arises as to the best means to restore to the North and South American countries the former prosperous trade in silver coin with Europe and Asia.

The American countries North and South yield four-fifths of the production of silver in the world; if, then, these governments prohibit the export of silver in bars from these countries, silver will consequently become scarce, appreciate in value, and our coin will again be in demand and at a premium.

A combination of the North and South American countries by treaty to prohibit the export of silver except as coin, and to regulate the value of such coin made by each country on an equal and uniform standard, can be obtained by diplomatic conference and treaties with the countries concerned, if our government was honestly working in the interests of silver as pledged before election. All the newspaper talk of bi-metallic conferences with Europe have resulted, and will again result in nothing, as the interests of silver producing North and South America, as a producer and vendor of silver are antagonistic to those of the purchasing countries in Europe who desire to buy silver in bars at the lowest price of their own naming. But the interests of the North and South American silver producing countries as vendors of silver, can by wise diplomatic treaties be made one, so as to dictate to Europe that the value of silver shall be that of U. S. silver coin as was the case for eighty years during the period from 1793 to 1873.

If the Democratic rulers desire to keep faith with their promises to the people before election, to enact legislation in the interests of silver, here is a chance to show their diplomatic powers with South American countries and to refute the cries that they have been bought up in the interests of owners of gold in Europe and America. Should they fail to do their duty in the case, the Republicans, who claim to work in the interests of protection to American industries, can grant a measure of protection to the silver miner by enacting treaties so that the vendor of silver will dictate the price to the foreign purchaser.

#### NOTHING WILL BE DONE.

It is quite evident that Congress will not take any action on the money question during the present session. The House tariff bill sleeps in the hands of the finance committee because the silver senators who are in the majority refuse to act unless free silver coinage is attached to the bill. The House is against silver coinage and were it possible to pass through such a measure it would be vetoed by the President.

Congress realizes the difficulties of the situation and hence propositions are pending for an early adjournment. It may be reasonably supposed that no legislation will be enacted on economic and financial questions, and that substantially all that will be done is to pass the appropriation. The outlook for anything of value to be done is unpromising at this or the next session. The country must wait for another Congress to look after the public interests. This Congress will not. It is to be hoped that at the coming election the people will choose a Congress that will respect public interests, and that there will be such harmony of sentiment that something of value will be done. The contest will be an active

one, and between the gold trust on one side and the people on the other.

THERE is the argument for the gold basis that the faith of the nation must be kept. Surely it must be; but let it be borne in mind that the national bonds are nearly all payable in coin, which, under our constitution and the common understanding, means gold or silver. The coins of each metal are placed on equal terms, so far as the language of the constitution is concerned.

## CORRESPONDENCE

### ARIZONA.

ORO BLANCO, Ariz., April 8, 1896.

EDITOR JOURNAL:—Following are a few briefs concerning the mining industries of this section:

Montana Mining Co.—Cyanide plant all ready, and will start up on return of the manager from the East.

Old Glory—Arrangements are in progress for putting in a 30 stamp mill.

Tres Amigos—Mill stopped for lack of water, after a very successful run. Mine looking very well.

Sorrel Top—Work continues in the shaft, showing good ore.

Monarch—Steam arastra continues to give good returns.

Barclay's Oro Fino—Shaft now 130 feet deep; ore improving.

Grub Stake—Some very rich streaks of free gold have lately been found in this vein.

Gold Bug—Besides the well-known rich gold vein of this claim, some rich silver ore has been found.

Oro and Julia Co.—Mill running. Regular bullion shipments as reported. C. W. K.

### CALIFORNIA.

MACEDONIA, San Bernardino Co., Cal

Apr 8, 1896.

EDITOR JOURNAL:—This is the first time that any news leaves this new camp. This group of mines was located in October, 1895, and certainly the mines have made a good showing since development work was commenced.

The Columbia mine is showing high grade ore. The ledge is from one to eight feet wide for 1500 feet in length; formation is hornblende, schist and porphyry, ten samples from this mine assaying from 8 oz. gold, 86 oz. silver to 2½ oz. gold, 450 oz. silver per ton. I have now five tons of high grade ore ready for shipment to smelter, with thirty tons of second class on the dump. This is the work of two men since the 1st of February, 1896.

The Occidental mine is showing a ledge from one to two feet wide. The ore is high grade, judging by the hornspoon samples.

The Good Hope mine has a very large body of ore on the surface. There is also lots of timber and water here. This part of the country was at one time the Macedonia Mining District. In the year of 1861 or 1862 or thereabout, there was work done on some of the big copper ledges, but was abandoned later. It is twenty-eight miles distant from Fenner on the A. & P. Railroad.

Very respectfully,

E. BAUMERT.

JULIAN, Cal., April 11, 1896.

EDITOR JOURNAL:—As I promised to write you in regard to Helvetia and other properties in Julian Mining District, will just say that Mr. Parrish of Colorado had the lower level of Helvetia mine pumped out for further examination, this time by Mr. Newberry, an expert of considerable fame, and widely known in Colorado and other mining States. Cannot tell yet what will be the outcome of the investigations.

The Owens mine has the water out to the bottom, and is now sinking and drifting.

The A la Bada cleaned up 145 ozs. of gold on her last run.

Teams are now busy hauling ore from the Ranchita mine to Bailey's mill.

Mr. Newberry also experted the Hubbard mine in the interests of Denver parties.

There is another new strike made this time on the east slope of the Vulcan mountain north of A la Bada. Cannot tell yet how good, but prospectors are flocking to the new strike by dozens, and it is reported to be very rich. Yours respectfully,

WILL E. SMITH.

### SAN DIEGO COUNTY.

SAN DIEGO, Cal., April 3, 1896.

W. B. King, of the Owens mine, near Julian, was in the city last week. The ledge on the 300-foot level of that mine has been cut and a fair grade of ore encountered.

Wm. Skelton, of Ramona, says he has acres of good quartz on his ranch awaiting extraction by some one who is looking for an opportunity to mine and who knows more about "rocks" than himself.

G. Raffi, a prominent merchant of Alamo, came up on the Pacheco the 22d ult. He is interested in the extension of the Viznaga mine which he sold to Russell & Davis, and which is now reported to be one of the richest mines on the Peninsula.

Cave J. Coutts, of the "Ranchita," has added another large gold bar to his collection, as a result of a 100-ton run at the Bailey mill last week. From the present appearance of Ranchita ore reserve a great many more "bricks" are also in sight.

The Comstock mine, near Banner, has recently been located by C. Diamond and J. G. Jones.

Supervisor Jasper recently returned from a trip over the eastern section of the county. He reports the Golden Cross mill running to its full capacity of 300 tons of ore per day, and that the camp at Hedges has every appearance of prosperity.

It is possible the recent visit of Jim Keene to the Hedges group of mines had something to do with the settlement of the difficulties under which the property has labored for some time, and it is to be hoped the mines under proper management will again come to the front as bullion producers.

E. D. Switzer has gone to Deer Park to take charge of the 2-stamp mill recently erected on the mines in which Messrs. Byers, Forward and Dodge are interested.

The stamp mill for the Piedad mine at Jacilitos has been transferred there from Alamo and is now being set up. On the 140-foot level two drifts have been started and before long the stamps will be crushing ore.



It is reported that Bailey & Daggett have struck it rich in the San Felipe.

Work is progressing on the Recompensa, near Eusenda, and good ore is being extracted. The Bryan, mill recently brought from down the coast, is being put in position for milling a large quantity of \$30 ore now on the dump.

There is at the present time a great demand for miners to be employed at Alamo and vicinity. The Viznaga alone is now working a force of about fifty men, and with the recent starting up of a number of mines in that locality the demand exceeds the supply.—*L. E. Aubury, E. M.*

#### MEXICO.

ZACATECAS, Mex., April 7, 1896.

EDITOR JOURNAL:—I enclose a clipping from the *Mexican Herald* that I thought might be of use to you, as it expresses some of our sentiments in about the right way. I met the Judge Clark therein mentioned on his trip through Mexico, and he certainly has his eyes wide open and thinks with the proper end of himself. If any of you Gringos think we Mexicans are losing any sleep over the fact that your Government has depreciated our currency, or that we are particularly anxious that you adopt the double standard and bring our money up to a par with gold, you are "away off." The depreciation of our currency has been a Godsend to encourage the development of the country in every line of industry. In almost every line we can now buy Mexican made goods that compare very favorably with the imported in quality, and both this fact and the depreciation itself tend to keep our money at home; the result is, we have plenty of money to transact our business with. It being so burdensome to pay our gold debts and make purchases payable in gold; with our depreciated silver, we are developing very especially all such industries, the products of which are readily marketable in gold countries for gold. This applies especially to coffee, rubber, hennequin, fruits, copper, gold and other lines. Our great lack is fuel, and I don't see how we are to overcome that for some time to come, if ever. But for that drawback, in ten years we would be selling Mexican manufactures in the United States.

I never could see how a man could be honest and a modern Republican without being a silver man, for if any man is honest in his belief in a high protective tariff, he must see at a glance that the finest protective tariff is a so-called depreciated currency, providing it is not a fiat currency. But the trouble with my Republican friends is their ideas of a protective tariff is one that will protect the man that can put up the most boodle. Anything that would be for the common good, in which the poor man could share would not be adjusted to suit their purposes. So that with the Republican party by nature opposed to any popular legislation on this subject, and the Democratic party so controlled by Carlisle, Cleveland and others who have "been down to New York and ruined by those bankers," I am afraid the silver cause is between the devil and the deep sea. ONE WHO KNOWS.

The big Bennett amalgamator at Green River, Cal., is reported to be a success. It is represented to have the enormous capacity of 4000 yards per day; the gravel runs from 12 to 30 cents per yard. The plant has cost \$60,000.

## Miscellaneous Mining News.

#### ARIZONA.

It is reported that the Mohawk mine will begin operations this week with a force of about two hundred men. Eastern parties interested in the property arrived in Tucson nearly a month ago, and final arrangements began to be made for commencing work. The Mohawk is in the Mammoth district, and adjoins that famous mine. Mining men believe it will develop into one of the most noted properties in Arizona.

The main shaft of the Congress mine has been sunk to a depth of 1600 feet, or about 200 feet deeper than it has been for the past two years. In doing this additional work a fine body of ore has been opened up, larger and richer, if anything, than any heretofore encountered in the mine.

The mill on the Silver Flake mine was started up on Tuesday, April 7, with every prospect of success. Quite a number of invited guests from Prescott were present at the starting of the machinery. The mill is a ten-stamp mill, and was built by John Jackson, and is said to be one of the best in the country. The property is already pretty well opened up, but the present owners are still continuing development work on it. The mine is located only about six miles from Prescott, and the owners are J. J. Philbin and John Mackin. About thirty men are employed in the mine and mill.

Supt. Brown will add one of Prof. Barnhardt's gold saving machines to his mill at Music Mountain, Mohave county.

The Congress Gold Co., by E. B. Gage, president, made final payment for the following mining claims, situated in Martinez mining district, Yavapai county, Arizona: Incline, Old State, Rich Quartz, Golden Eagle and Ohio.—*Courier*.

The Anderson brothers sent some fine specimens of copper pyrites to Tombstone from the Congress group of claims, on the Gila river at the mouth of Dripping Springs wash. They report that at the greater depth attained the ledge is wider and richer, some of it going 30 per cent in copper. The ore is doubly valuable on account of its desirable fluxing qualities. The claims are well situated about twenty miles from the Deer Creek coal fields, and there is a good wagon road from Dudleyville to within four miles of the property. The Anderson brothers and D. R. Williamson are the owners.

The Braley claim in South Pass near Tombstone is "panning out" better daily, the ledge widening and the ore becoming richer as depth is attained. This claim promises to become a big producer.

The mill of the Mammoth mine at Goldfields was started in operation on the 2nd of April with the prospects bright for a lengthy run on the highest grade of ore.

It is understood the second payment on the Pearce mine was made April 1st. The owners of the bonanza left for Wilcox on that day, where without doubt the second payment of \$10,000 was made.

Gen. J. B. Allen was in Tucson from Schultz. He reports the Mohawk mill approaching completion and stamps will drop

not later than the 15th inst. Other properties in the neighborhood are being developed by an association of their respective owners. There are four such associations and good development work is being done. The mines thereabouts, as opened up, promise exceedingly well, and the future of that section of country cannot be overrated.

Gilmore, Bradbury & Loomis continue work on their zero mine.

T. C. Hill returned to Jerome April 2d from a visit to the Colorado river on mining business. Speaking of the new copper district in that section he says it is a good country for a poor man to stay away from.

It is said that the Etta made a clean-up of over \$1650 for less than a four-days' run with ten stamps. This would give an average of about \$9000 a month, or \$108,000 a year with ten stamps. Cherry creek is evidently all right.—*Jerome News*.

We were shown an average sample of ore taken from the new Huachuca find near the Copper Glance mine, and belonging to Mr. Samuel Donnelly. The ore is the richest glance of both copper and silver it has been our fortune to look upon, being almost pure metal. The ledge is over two and one-half feet wide, and Mr. Donnelly informs us that as depth is attained the ledge widens and its richness increases. The shaft is now seventy feet deep and the prospects are indeed encouraging.—*Tombstone Prospector*.

A. L. Kendall, who is the new lessee of the Pratt mill on Big Bug, has his plant started and is running night and day on ore from the near vicinity of the mill, and has a supply engaged that will last for a steady run well into the summer.

Frank Kuehne has four men at work sinking and otherwise developing his Sunny South mine south of Prescott. He says he has four feet of better ore in sight now than he has ever struck in the mine before. The ore body not only increases in size, but the ore gets richer the deeper they go on the property.

Superintendent Wallace of the Senator mine and mill has secured a bond and lease on the Surprise and an adjoining claim, from the owners, William Kent and Frank Parsons, and has a force now putting up buildings preparatory to active development of the claims. The Surprise is the property on which Frank Wright recently took out a shipment of wonderfully rich gold ore, and the new deal is the result of that discovery. A fine body of ore shows in the tunnel.

The El Oro Gold Mining Company, B. A. Fickas president, W. T. Smith vice-president, C. E. Major secretary, was organized at Phoenix April 4th with \$1,250,000 capitalization. The company owns a number of valuable gold properties in Yavapai county, on which money has been profitably expended in development work. They have about 2000 feet of workings on their various claims nearly all of which is in ore. They report a good showing of mineral, some of the ore taken out running over \$100 per ton. This is but another evidence of the increased evidence in mining in our territory, and when such well-known men of our city take an active interest in Arizona mines, we can safely predict heavy investments in the same channels from Eastern capital.



Reif and Flimmelreich are actively prosecuting work on their claims at the head of Big Bug. They are drifting south from the bottom of the shaft, and a large body of mineralized quartz shows in face of the drift. The upper wall is granite and lower wall black porphyry, a promising contact. Kendall is now running his mill on ore from this property.

G. B. Scammell and Henry Bardsbear have twelve men at work on their "1896" mine at Walnut Grove. This property was worked some years ago by an English company, but owing to disadvantages existing at the time it was abandoned after 1200 feet of development work had been done on it. Since Messrs. Bardsbear & Scammell re-located it on January 1st of this year, they have added largely to the development work and have a good body of free gold ore now in sight which assays \$40 per ton. The property has been negotiated for by Chicago parties for \$75,000, and the prospect is good for the consummation of the sale. The mine was formerly known as the Texas.—*Prescott Journal-Miner*.

D. R. Williamson was in Globe April 4th from Del Sha basin, where Al Seiber and he are engaged in developing the Last Chance and Blackbird mines, two of a group of four claims. The two claims on which they are now working are fairly well developed and on all the claims ore in place, and carrying gold, has been discovered. On the Last Chance and Blackbird two shafts are down 70 and 100 feet and in good ore, and at the various openings there are at least 500 tons of ore of working grade on the dump.

Messrs. Williamson and Seiber have been engaged the past winter in driving a tunnel to cut the ledge at a depth of 110 feet. They are now in 170 feet and will soon have completed their task. Several assays of ore from the various openings have been made which yielded an average of \$33 per ton in gold, the ledge is strong and lies in porphyry and slate, and excellent formation. There is an abundance of wood and water convenient to the property, which lies on the eastern slope of Mount Reno and is easily accessible from Tonto valley. Globe is the supply point.—*Silver Belt*.

A. J. Doran was in Phoenix the 5th inst. from Goldfield, where he is running the ten-stamp mill at the Bulldog mine. He thinks that a camp of considerable promise, and, being a thoroughly competent and reliable man, his opinion is valuable.

The immense lode below Union Pass, near Kingman, is now being worked by an English syndicate and is proving a bonanza. Between walls the ledge is fully 100 feet and the grade of ore is exceptionally good.

O. F. Kuencer has moved his small hoist onto the Esmeralda mine, near Kingman, and will commence active operations on that property in a short time. The mine is a gold producer and is an excellent concentrating proposition.

It is reported that A. A. Spear of Fort Mohave has sold his mining claim in San Francisco district, Mohave county, to an English company for \$25,000. The mine was recently located and rich ore was found in the outcrop.

James Smith and Asa Harris were in Kingman from Weaver district the 2d instant and report that they have struck an eighteen-inch streak of very rich gold ore on the Mountain

Queen mine, owned by the Black Range Gold Mining and Milling Company.

W. J. Schofield, accompanied by Charles D. Lane and Louis Lane of Angels Camp, Calaveras county, and C. W. Tozer of San Francisco, arrived in Kingman April 1st and went out to inspect the Mocking Bird mine the next morning. C. D. Lane is an owner with Hayward and Hobart in the famous Utica mine, and Louis L. Lane is the superintendent. The gentlemen are interesting themselves in the gold mines of Mohave. The Mocking Bird is an excellent property to become interested in. It is shipping carloads of rich gold ore to the Arizona sampler. The ore is free milling and will average \$24 throughout the vein. The ledge is eight feet in width.—*Mohave County Miner*.

#### Some Rich Ore.

A check arrived on Saturday from El Paso in payment for a carload of ore from the Eclipse or Luke mine in the Bradshaw mountains, seventy miles north of Phoenix. The car of ore weighed 21,756 pounds, and after expenses of reduction were taken out the owners received \$4294.31. This is \$394.77 per ton at 68¾ per ounce, the price received.

The Eclipse is one of the richest silver mines on the continent, as ore of this grade seems to be there in inexhaustible quantities. For years it was in litigation, but it is now settled, as the property of John, Frank and C. A. Luke and Frank Kirkland.

Teams were loaded again last Monday, and to-day they will probably arrive with half a carload toward another shipment. If Phoenix had a smelter all this rich ore, and much not so prolific, could be reduced without paying railroad tolls.—*Arizona Gazette*, April 5th.

#### Saving Flour Gold.

E. Hilty, who is working the bars of the Colorado river for the flour gold they contain, by the Barnhart amalgamator process, was in Prescott. He is working fifteen men at his camp on the Colorado river and is making a success at saving the flour gold which fills the bed and banks of that stream. A great deal of money and labor has been expended in years gone by to save this same flour gold, and that Mr. Hilty is successfully doing, so it speaks well for his efforts and merits of the Barnhart amalgamator, which latter is an invention of the father of the Barnhart firm of Prescott assayers.

#### CALIFORNIA.

##### SAN BERNARDINO COUNTY.

H. L. R. and H. J. Ashford have discovered some rich gold mines about sixty miles from Mojave, due east, in the Rand mining district. The rock is a common gray quartz, flecked with dark spots, which may on a scientific assay show ruby silver. The ledge is six inches wide on the hanging wall, and ranges down to the foot wall rock in a vein eighteen inches wide; worth about \$50 to the ton. The ledge shows on the surface for some 500 feet and all the samples taken are from surface prospects, and no development has yet been attempted.

#### Gold Ore Worth Thousands.

John Marchant, late engineer and assistant manager of the big Holcomb Valley Gold Mining company, returned from Manvel to San Bernardino March 31st, bringing with

him some marvelously rich specimens of gold ore.

The claims are located about four miles distant from Manvel and have been undergoing development for some time. Several shafts have been sunk on the same series of ledges for the purpose of exposing their value, but the specimens were found only a few days ago. A shaft eighty-five feet in depth has been sunk on a thirty-six inch ledge and another 100 feet in depth on a twenty-four-inch ledge, both evidently in the same vein. The sample was taken from a tunnel on a cross ledge intersecting the main vein, and would run between \$25,000 and \$30,000 per ton. Mr. Marchant says that there is probably but a very small body of ore having this remarkable richness, however. He says that the mine will average between \$60 and \$100 in gold throughout and that it is going to prove a bonanza.

The formation is a white quartz carrying free gold. In the pieces of ore brought back by Mr. Marchant the gold stands out in chunks and the rock is fairly impregnated with it. An old mining man of this city pronounces them to be the richest specimens of the kind ever gathered in San Bernardino county.

Mr. Marchant came from England about eighteen months ago to take charge of the Holcomb Valley company, and severed his connection with that corporation February 15th, after which he went to investigate the claims near Manvel and from there to Soda Lake, seventy miles beyond Vanderbilt. He proposes to start within a short time for London, where he will organize a company of capitalists to work the mines. He admits that it is an out and out purchase, but declines to state what figures will be paid for the property. Owing to Marchant's well-known ability as a mining man and his influential connections with several English capitalists it is probable that his plans will be materialized.—*Saturday Review*.

##### RIVERSIDE COUNTY.

##### Perris.

From assays recently made, the ore in the Cincinnati Belle has yielded \$35 per ton, while the poorest ore averaged \$12 50 per ton. The main shaft has been sunk 65 feet, and a tunnel running south has been put in to a length of 105 feet. In this tunnel the gold-bearing ledge runs from 18 inches to 4¼ feet in width. Another shaft is now being put down 200 feet south of the other shaft, and will be timbered to a depth of 250 feet. A gas engine is used for pumping, hoisting and other purposes. The owners—G. G. Sarhansan, J. McLaren and Mrs. O'Brien—are very sanguine over the handsome results so far obtained, and in sinking the new shaft, the work will be pushed as speedily as possible. Henry Bell, who is working in the interest of his mother, is superintending operations.

Application for a patent for the Leon mine, in the Pinacate Mining District, has been made.

The Leon mine is running day and night and all reports are that it is improving wonderfully.

The Lucky Boy and Menifee mines are also going ahead in good shape.

A mill test of ore from the "Snowbird" was recently made at the Alice mine with satisfactory results.



The Santa Rosa mine is now running fifteen stamps and employing twenty-five men. It is reported that the staff of men will be increased in a short time.—*New Era*.

It is reported that the affairs of the Santa Rosa mine at Perris will soon be straightened out. A party of capitalists were expected to arrive in Perris on the 10th inst., when a new company was to be organized, all debts liquidated and the mine and mill run to its utmost capacity.

W. P. Bevington filed a mining location notice April 11th, covering the Battle Peak mine in the Escondido mining district.

#### LOS ANGELES COUNTY.

The Lone Jack gold mine in the Little Tabunja canyon in Los Angeles county, has been sold and a 60-stamp mill is to be put in at once.

#### SAN DIEGO COUNTY.

##### A Large Mining Dicker.

A deed was filed April 9th with the Recorder covering the old Picacho mining district, and is one of the largest mining sales made for a long time. Stephen W. Dorsey sold to the Picacho mining company, a Colorado corporation, all of the claims located in the old Picacho mining district for \$32,000. The mines sold are interests in the Mina Rica, Apache, Central and Western Pacific.

At the same time deeds were filed showing that Dorsey had bought several mines from owners, all lying in the same district. Lida Smith sold him, for \$5, certain interests in the Rica Terra, the Golden Casket, and the Mars. Also for \$2500 a quarter interest in the Rica Terre. George Hetzel sold one-half interest in each of the Eastern California mine and the Apache, receiving \$2500 for the same.

A. J. Smith sold his half interest in the Golden Casket and the Mars for \$11,250.

J. M. Mandevill sold his interest in the old Picacho mines for \$5000. In connection with these sales a mortgage was filed, given by Stephen W. Dorsey to Joseph M. Mandevill and Allan J. Smith, for \$24,167, covering the mines in the old Picacho district. This mortgage was secured by four promissory notes. It will be seen that Dorsey made something over \$7000 by the transaction.—*Vidette*.

#### LOWER CALIFORNIA.

David Goldbaum and Luis Pegot have made a contract with Angel Canas to work the old Castillo mine in the Real. It was this mine that made the town of Real del Castillo, and Canas was one of the men who originally worked it. The old works are down 250 feet, but for the past eight years it has been lying idle. Mr. Goldbaum also owns two other properties in the same group—the Puebla and San Fernandito.

John McCool, who is interested with Mr. P. L. Griffin in the Piramide Mining Company at Juarez, was in Ensenada last week to denounce twelve placer claims in that district. They are denounced under the name of Golconda.

Mr. O. P. Reed returned from the Zaragoza district the early part of last week. He states that the activity out in the hills is surprising, and a team coming in from the Real April 8th met twelve heavily loaded wagons on the road to the mines. They carried for the greater portion provisions.

#### MEXICO.

##### A Big Deal.

We hear that the Rothschilds have sent out an agent to examine the Mulator mine in the state of Sonora. This mine is said to be a good one and it is understood they will buy it. The mine is near the Subuaripa at the foot of the Sierra Madre. They intend also to purchase the Grand Central and Amarillas mines of the Colorado company, which recently purchased both mines—the first from Mr. F. Seymour and the second from the Monteverde family. The agents have gone to Cleveland, Ohio, the headquarters of the company, to purchase the Colorado, Creston and Verde and several other claims—in fact the whole camp. The amount of the purchase money is not known as yet, but as the camp was turning out millions a year, the sum must have been a big one.

Mr. Seymour is going to build the old Cerro Blanco railroad from Torres station on the Sonora road to the Minas Prietas, a distance of thirteen miles over a level stretch, and expect to do a large business.

The entry of a heavy English company like the Rothschilds into Sonora will mean a great deal to mining interests in that State, and it is to be hoped will lead to the entry of other companies in similar investments in Sonora and this neighborhood.—*Prospectors*.

#### NEW MEXICO.

##### MOGOLLON.

The Maud S. company have made a fine strike on their 300-foot level.

They ran about 200 feet from the shaft in free milling ore, then 50 feet in barren ground, after which they again struck base and free milling ore.

On the 250-foot level they will drive 100 feet on an upraise to connect with the working above to afford a better ventilation through the mine.

The chief work on this property, is on the 300 and 375 foot levels.

The mill is running full time, ten stamps being employed on free milling ore and five stamps on the base ore. The base ore is being concentrated.

About forty-five men are employed in the mine and mill.

Work on the Grey Hawk mine is also being pushed by the Maud S. Company. They have forty-two men employed on this property, and Mr. R. E. Gunther is the superintendent. A steam hoist has been erected and other necessary conveniences added to the workings.

The Deadwood mine, owned by Ross Thomas and Frank Smith, is on the same contact as the famous Confidence mine. They are down 150 feet on a crosscut tunnel from the creek. They went in 100 feet on the level and then drifted 100 feet north. The ore breast is five feet broad at this point and runs \$50 per ton; one-half of the value being in gold.

Dan Bechtol, Al Johns and Dolph Rosencrans have located the eastern extension of the Grey Hawk since the first of the year, and have christened their claim the Trilby. They are sinking a shaft and are down about twenty feet at present. At this point they have an eighteen inch vein of ore in sight. It promises to turn out a rich property.

F. X. Eberle is connecting his mine with the Deep Down. This will be of great value to both properties in the way of ventilation, etc. Some extensive improvements have been made in the Deep Down property. The whole mine has been retimbered as far as the stoping has been done with perhaps the heaviest timbers to be found in any mine in this section. The new hoisting machinery arrived last week and will be put in place as soon as other necessary work can be done. They have five stamps employed in the mill and are adding five more, with plates, pans, settlers, concentrators, etc. Mr. Brown, the general manager, is laying plans for extensive development work. Two shafts will soon be sunk to a depth of 600 feet. The general grade of ore in this mine is about the same as that found in the Maud S.

The owners of the Last Chance mine have refused an offer of \$50,000 for the property by Toledo, New York and Nevada capitalists. *Southwest Sentinel*.

#### Hillsboro Mines and Mills.

[Advocate.]

The Happy Jack and Hillsboro mines together will ship a carload of first-class ore next week.

Hirsch & Thompson are about to make another shipment from the Prosper mine.

A tunnel is being driven on the Mary C. extension of the Richmond by lessees, and following on a streak of good ore.

The Key West lessees, Wayland & Dickey, have struck a 10-inch streak of \$170 ore.

The Bonanza mill this week has treated one lot of lease ore from the Snake, and is now running on a large lot of company ore from the same mine.

Richardson & Co. have struck some rich ore in the Catherine mine, and are reported to be taking out a large quantity of the same per day.

Supt. Hall, of the Snake mine, will make a shipment next week of a carload of first-class ore and concentrates. This will be the first shipment made under the new ownership.

Selen & Berglin are working the Unicorn mine in Ready Pay gulch. A sixteen ton test lot of the ore recently treated at the Bonanza mill gave excellent results, and the mine will become a regular producer. The Unicorn is the most northern of the Scandia group of claims, and its successful working will stimulate miners to look into the merits of the adjoining mines.

Some fine specimens from the recent strike in the 300-foot level of the Eighty-Five mine have been on exhibition at Keller, Miller & Co.'s store this week. The ore contains a considerable quantity of what appears to be sylvanite, or native tellurium, so called from its original discovery in Pennsylvania. Such ore may be very rich in gold or silver, or both at once, and on the other hand may contain little of either. In this case it is reported to be of high value, but nothing certain will be known until the assays are made.

The mining outlook in Grant county continues to improve every day. No better evidence of this could be adduced than the accumulation of ores to be smelted at the works of the Silver City Smelting and Refining Company below town. Mr. Bretherton,



superintendent of the company, during his past experiences in charge of the smelting plant at Hanover, has made for himself a record as a successful metallurgist, as well as for fair dealing with mine owners, which will bring patrons and customers to the new works and will tend largely to their success. Every available space about the works is being filled with ore of varied kinds and from many different camps of the county, showing that the new reduction works are leading an impetus to the mining interests in all the camps of this vicinity. The manufacturers at Chicago have been tardy in filling their contract to build the new water jacket furnace, but it will be shipped during the coming week, and as everything is in readiness to start up on its arrival the probability is that the works will be running full blast by April 15th.

#### HANOVER.

The New Mexico and Arizona Smelting Company has fourteen men at work on the Guadalupe, Yosemite and Chino copper mines at Santa Rita. The mines are owned by the Santa Rita Copper Company, and are worked under lease by the smelting company. All three of the mines are producing fair quantities of good copper ore.

N. S. Berray, superintendent of the Copper Flat mines, will soon commence sinking upon a shaft on the Republic iron mine in Hanover gulch. It is generally conceded that the great iron deposits of Hanover and Santa Rita are cappings to enormous bodies of copper ore below. This has been demonstrated at different points in this great ore zone, where deep shafts have been sunk. The shaft on the Republic claim will be pushed to a depth of 400 feet in the expectation of encountering the copper ore by the time that depth is attained. The contract for the necessary timbers has been let to John Elder.

#### A New Mining Company.

It is proposed to organize a company to do the assessment work and develop one or more of fifteen claims that are located adjacent to those of the United States Gold Mining Company's and also in the immediate vicinity of the Lucky Jim, in the Ladrone mining district. The amount of subscription is \$25 and the number of subscribers will be limited to forty, the same as in the incorporation of the United States Gold Mining Company, but work will be commenced at once, with a less number of subscribers, if necessary, each subscription guaranteeing the amount necessary for assessment work on any one claim and entitling the subscribers to an interest in all the claims. An opportunity is thus afforded those who desired but failed to get into the first syndicate of forty, of which Mr. Saint was the promoter, and which organized into the United States Gold Mining Company, now actively at work with promising results in the Ladrone mountains, to enter into a similar co-operative plan under exactly the same favorable circumstances. Mr. A. B. Reading, the court stenographer, we understand, has the matter in hand, who will receive subscriptions and give all necessary information desired.

Another rich strike is reported from Golden, Santa Fe county. A prospector named Johnson was exhibiting some very rich samples of ore which he had discovered. It is an oxidized yellow ore, very soft and crumples very easily. A piece weighing three ounces had \$5

worth of gold in it. This piece was pulverized in a mortar and the gold actually washed out of it. The lead is not very wide, only about four inches, all very rich, but the richest part, such as the samples show is two inches in width. This find is about two miles east of Golden on Government land.

Mrs. Frank Vingoe has sold her interest in the Little Fanny mine for \$2600, and thus terminated the long and expensive legal proceedings which have been going on for so long.

A. E. Dawson was in Silver City from Hanover the 2d inst. He said that the Ivanhoe smelter was closed down on the 30th ult. for repairs on the boiler, but that it would be blown in on April 3d. The smelter has been doing good business right along and there is an abundance of ore on hand upon which to operate for some time to come.

Eceberger and Slater of Hermosa are sampling and sacking the high-grade ore from their lease on the Humming Bird mine, near Chloride. They think that this lot will run about 400 ounces silver to the ton, running heavy in lead. Their last shipment returned 484 silver.

#### CENTRAL.

The Texas and Grand Central mines are keeping up their reputation as producers. A larger steam hoisting plant will take the place of the one formerly in use and will furnish hoisting facilities to a depth of 500 feet.

Rogers, Biddle and Harlec are working day and night shifts on the Roscoe mine at Hilltop, near Whitewater canon, on the S. C. and N. R. R. The shaft is down nearly thirty feet and shows a fourteen-inch vein of rich ore similar in character to that found on the Texas and Grand Central mines.

#### WHITE SIGNAL.

Galloway & Alexander have finished the grading for the mill on the Elnora mine. The Huntington mill and machinery is all on the ground and will be running within thirty days producing gold galore.—*Silver City Enterprise*.

#### GRAHAM.

The big mill of the Helen Mining Company, which has been undergoing repairs for the past three weeks, started up on the 1st instant.

The Confidence Mine of the Helen Company employs on an average about sixty men, who break from sixty to eighty tons of ore per day. The company proposes from now on to keep the bins at the mill filled to their utmost capacity. There is a good deal of development work going on, the drift from the main level is being pushed forward rapidly, sinking in the winzes goes on, and later, drifts will be run and stopes opened up. The new superintendent and general manager of the works is a thorough going practical man and is doing good work.

#### PINOS ALTOS.

The Treasure Mining Company is doing lots of work on the Atlantic Mine, employing from thirty to forty men.

Christman and Robinson are working a force of seven men on the Tip-Top, and they are extracting good ore.

Hirshberger is working twelve men on his Western and Western Belle mines and he is getting good ore.

The Pacific Gold Company is being operated by Spiller & McLean, who employ twenty men, and take out ore enough to keep the Pacific Mill near Silver City running steadily.

The Golden Giant is working a big force of men and they keep the Mammoth and Stanley mill in operation.

Bell & Stephens are sinking the old shaft on the Mina Grande deeper and they are doing plenty of development work.

The same parties are also working their Pacific mines, and judging from the amount of bullion they ship regularly they have a bonanza.

Demmick Brothers are working a few men on their Silver Cell mine. They shipped to New York sixty-five pounds of refined silver bullion the latter part of March. They have their own reduction works on the ground. Their last shipment was 990 fine. The best ore averages from 15,000 to 27,000 ounces of silver per ton.

Spaulding & Allen are sinking on their Silver Chord and are extracting some ore. A shipment of 3000 pounds was made to the Deming sampler last week, which netted more than \$90. The shaft is now 110 feet deep, and it will be sunk fifty or sixty feet deeper before any more openings are made.

#### COOK'S PEAK.

Recent locations in this camp are the Jennie Dickey mine, by Mrs. W. A. McDaniels; the Silver Gem mine, by C. E. Miller; the Silver Gem millsite, by McDaniels and Miller; the Lone Star mine, by Henry Nunn, and the Justice mine by U. E. McDaniels.

The big strike on the El Paso properties, under lease by William Kieff, continue to be good, as first appearances indicated, and shipments are being made regularly. Mr. Kieff is employing about twenty-five men.—*Headlight*.

#### Grafton.

John Woodhouse is working on his property south of the Ivanhoe, and is making a good showing.

It looks as if Grafton is going to come to the front with new strikes of ore every day that pans well in gold.

John Petrie is going to sink a 50-foot shaft on the Last Chance, at the bottom of which he will cross-cut the ledge to prove its value. Two men are now at work sinking, and work will be pushed right along till the contemplated development is finished.

The Cow-boys Pride is showing up well. John Cook and Mose Gibson are satisfied that they have a good property. The more work executed on the dyke mines the greater promise that the dyke mines are going to be the big mines of this district.

Rumor has it that the ore found in the new mines in this district carries palladium or platinum, in the meantime test will be made to see if rumor is correct. Will the editor please give the commercial value of platinum and palladium?

NOTE—Palladium is worth \$512 per pound, and was discovered by Wollaston in 1803. Gold is worth \$240 per pound, troy; platinum, \$130 per pound.—[E.D. N.W.S.]



The Bell mine in the San Mateos, Socorro county, promises to make millionaires of its owners. At a depth of 100 feet the vein is twenty-four feet in width, and of the several assays made none have fallen below \$100 in gold to the ton.

It is stated that Jack Deboo and Major Randall, of Golden, have given a working bond to Colorado parties on the Cullen group of south Santa Fe gold mines. The price which the parties agree to pay after sixty days' inspection is \$40,000.

Word from Golden is at hand announcing that J. T. McLaughlin and others have just made a rich strike of galena and lead carbonates on a claim in the vicinity of the Lincoln-Lucky mines. The full extent of the discovery has yet to be shown by development work, but the New Mexican's informant, who had a talk with Mr. McLaughlin on the subject on the 8th inst., says the ore is equally as rich as that originally taken from the Lincoln-Lucky and shows an extent of this class of ore there that will have an important bearing on the enterprise to erect a smelter at Cerrillos.

Capt. Sylvester Davis is in Santa Fe from Galisteo. He has recently discovered in the mountains south of that place a mineralized vein which carries pay ore yielding gold, silver and copper, and bids fair to attract no little attention. The vein is over 100 feet wide on the surface and can be traced for miles. As far as known Captain Davis is the first to prospect for mineral in that section of Santa Fe county.

#### The "Old Abe" Caves In.

News has been received here of a serious disaster to the "Old Abe" gold mine at White Oak, says the El Paso *Herald* of the 1st inst. There was a caving in a few nights ago, from the first to the sixth level, a distance of about 700 feet. The men were all out of the mine at the time. It will take many weeks, and an expenditure of \$50,000 to repair the damage. Nearly all of the people of the camp are dependent upon this mine for employment, and the disaster is of a public character. The burning of the shaft, last year, caused the loss of five lives and the suspension of work for months. The mine has for many years been a good producer, and has paid large dividends. Recently a new body of rich ore was struck, and undoubtedly the company will take prompt measures to repair the damage.

James H., Frank W. and Morris B. Parker and R. D. Armstrong returned to White Oaks last week from San Andres, where they have located some mining claims on large bodies of fine-looking rock.

C. T. Brown, of Socorro, is superintending the work on the "Piketon" claim, in Copper creek district, near White Oaks, and reports a large body of high grade ore in sight.

W. H. Skidmore shipped a car of ore from the Bennett-Stephenson mine, in the Organs, to Pueblo, Colo., last week.

The Perry Brothers were in Socorro from the Rosedale mining district, April 4th, and brought in some rich ore from the Bell mine. They have a location in the vicinity.

The smelter at Magdalena is rapidly nearing completion, and will probably be running before another month. The slowness of material to arrive has caused considerable delay.

Joseph Grieshaber is making an examination of the "South Homestead" mine at White Oaks, with a view of working it on a lease.

Output of Hillsboro gold mines for the week ending Thursday, April 2d, 1896, as reported for the *Advocate*:

	Tons
Wicks Mine.....	105
Richmond.....	100
Happy Jack.....	40
Animas Peak and Cement mines.....	75
Catherine, Key West, Eldorado, Garfield and Bull of Woods.....	80
Freiburg .....	45
Total.....	445

Total output since Jan. 1, 1896—6,038.

## GENERAL NEWS

### PATENTS.

Messrs. Hazard & Townsend, solicitors of patents, 9 Downey block, Los Angeles, Cal., report the following list of recent patents of interest to mining men:

March 24th. No. 556,779.—Gold separating machine. John H. Shufelt, Dolores, New Mexico. The ore passes over an inclined screen; a fan blast is arranged to discharge air through the screen to carry the light material over.

March 24th. No. 557,057.—Process of and apparatus for producing metallic compounds by electricity. E. N. Dickson, New York, N. Y. This consists of an electric furnace having an interior chamber through which lime and carbon may be fed, an exterior chamber surrounding the same, two carbon poles connected with the dynamo for effecting the conversion of the materials into calcid carbide, etc.

March 31st. No. 557,143.—Device for splitting or breaking down coal, rock, etc. William A. McKinley, Denver, Colo. This consists of oppositely arranged wedge pieces having inclined faces, a wedge rod having corresponding inclined faces, and two rollers adapted to roll between the inclined faces as the wedge rod is withdrawn and to thus force the two wedge pieces apart.

March 31st. No. 557,144.—Mining machine. Edward S. McKinley, Denver, Colo. This is a combination of a stationary bed, a sliding carriage on the bed and an engine on the carriage adapted to operate the cutters carried by the carriage.

March 31st. No. 557,340.—Mining machine. C. O. Palmer, Cleveland, Ohio. This is a combination whereby the short cutter cuts a kerf beneath the coal, and the long cutter bar deepens said kerf.

March 31st. No. 557,481.—Mine trap-door. J. O. Brien. A curved track section, has pivotal connections at its extremities with the tie chairs, and a lever is operated by the weight of the car to open the door.

March 31st. No. 557,529.—H. P. Holland, Oakland, Cal. This is a combination of a circular battery bed, a main shaft, rollers arranged to roll around in the battery and secured to inclined supporting shafts which are adjustably connected with the main driving shaft, thereby to adjust the rollers with relation to the grinding face of the battery.

March 31st. No. 557,121.—O. M. Graves, North Yakima, Wash. Magnetic needles secured to an endless carrier pass through the ore, and an oscillating hammer engages with the edge of the needle carrier to jar the material from the needles.

April 7th. No. 557,880.—Apparatus for condensing fumes from smelting furnaces. A chamber having water in the bottom is divided by a partition into two compartments: a revolving conveyor having a tapering spiral passage partly submerged in the water gathers the fumes from one compartment, carries them through the water and discharges them into the other compartment.

April 7th. Miner's hat. Comprises a soft hat provided with a spring metal casing larger than the hat, and clips connecting the two.

April 7th. No. 557,745.—Mining machine. C. E. Wolfendale, Allegheny, and George W. Fritz, Pittsburg, Pa. This consists of two rotary cutting disks, and various mechanical features to adapt them for making cuts in coal mining.

April 7th. No. 557,937.—Removable ore roaster. L. S. Austin, Denver, Colo. A revolving cylinder supplied with a series of air pipes for conducting air into the interior.

April 7th. No. 557,973.—Reducing mill. W. O. Cofield, Piqua, Ohio. A fixed casing having an inverted cone-shaped grinding chamber, an inverted cone of smaller size than the grinding chamber is arranged in the chamber and provided with a cavity in its top, and a shaft having an eccentric thereon revolves in the cavity to impart a rotary motion to the cone.

April 7th. No. 557,686.—Rotary rock drill with hydraulic feed. A. E. W. Meissner, Charlottenburg, Germany, assignor to the Siemens & Halske Electric Company of America, Chicago, Ill. A rotating pipe provided with a longitudinal movable drill pipe or cylinder, a stationary piston within the drill pipe, and a feed pipe having ducts opening on opposite sides of the piston, whereby the pressure will advance or retract the drill pipe as desired.

April 7th. No. 557,958.—Method of and apparatus for keeping tunnels, etc., free from rubbish produced by blasting. A. Brandt, Uhlenhurst-Hamburg, Germany. When the blast is fired jets of water under high pressure are delivered against the face of the tunnel and also rearward therefrom thereby carrying the rubbish backward along the tunnel to the rear of the face so that drilling may be commenced as soon as the water is shut off.

Copies of the above patents will be furnished by Hazard & Townsend for 25 cents (stamps) each.

### LOS ANGELES MINING AND STOCK EXCHANGE.

The organization of the Mining Exchange, mentioned in our last issue, has been completed. The articles of incorporation and list of charter members are as follows:

#### ARTICLES OF INCORPORATION OF THE LOS ANGELES MINING AND STOCK EXCHANGE.

Know all men by these presents, that we, the undersigned, a majority of whom are citizens and residents of the State of California, have this day voluntarily associated ourselves together for the purpose of forming a Corporation, under the laws of the State of California, and we hereby certify—

First: That the name of said Corporation shall be The Los Angeles Mining and Stock Exchange.

Second: That the purposes for which it is formed are to encourage and advance mining industries generally; to interest capital for the development and purchase of mines and mining prospects, and in aid of those who may require financial assistance in developing their own mining prospects; to maintain a Stock Board for the listing, calling, purchase and sale of mining and other stocks and bonds in the interest of its members; and to maintain a Bureau of Mining Information, whose reliable data, reports, description and statements can be obtained in regard to bonds, stocks, mines or prospects listed with said



Corporation. Also to establish a Clearing House in connection with said Exchange.

Third: That the place where the principal business of said Corporation is to be transacted is Los Angeles, California.

Fourth: That the term for which said Corporation is to exist is fifty years, from and after the date of its incorporation.

Fifth: That the number of Directors or Trustees of said Corporation shall be nine, and that the names and residences of the Directors or Trustees who are appointed for the first year, and to serve until the election and qualification of such officers, are as follows:

NAMES.	RESIDENCE.
A. H. Judson.....	Los Angeles, California.
J. A. Fairchild.....	" " "
H. M. Russell.....	" " "
E. K. Alexander.....	San Gabriel, "
F. C. Garbutt.....	Los Angeles, "
Geo. W. Parsons.....	" " "
F. L. Griffin.....	" " "
Chas. Wier.....	" " "
E. T. Loy.....	" " "

#### OFFICERS.

A. H. Judson.....	President
J. A. Fairchild.....	Vice-President
H. M. Russell.....	Treasurer
F. J. Cooper.....	Secretary

Sixth: The amount of the Capital Stock of said Corporation is Twenty-five Thousand Dollars, divided into two hundred and fifty membership shares, of the value of One Hundred Dollars each, and no person shall be entitled to hold more than ONE of said shares, nor shall any of said shares be issued to any person not a member of said Corporation; but a member may transfer his share to any other person who may be acceptable to the Board of Directors, and as soon as the said Board shall, by resolution entered on its minutes, approve of said transfer, the transferee shall, on payment of such sum as the Constitution or By Laws may require, become entitled to the privileges of membership, and not before. No assessment shall be levied on any of said stock unless by consent in writing of three-fourths of the stock holders. Each of the original incorporators, or what may be termed charter members, shall be entitled to a membership share on payment of the sum of Ten Dollars, (\$10.00), and when the membership shall have reached one hundred, no more shall be admitted except by a majority vote of all the members present of the Board of Directors.

The Board of Directors are authorized, by a two-thirds vote, to make all by laws, rules and regulations which may be deemed necessary or proper for the government of this Corporation, and to enforce the same by such fines and penalties as may be deemed most effectual.

The by laws of this Corporation may be amended at any time by a two-thirds vote of the Board of Directors, at a meeting duly called for that purpose.

Seventh: That the amount of said capital stock which has been actually subscribed is \$9900 Dollars, and the following are the names of the persons by whom the same has been subscribed, and the amount subscribed by each of them, to-wit:

#### NAMES OF SUBSCRIBERS WHO ARE CHARTER MEMBERS.

J. H. Bryant	A. C. Jones
H. M. Russell	E. P. Johnson
P. L. Griffin	Geo. P. McMannon
F. C. Garbutt	H. T. Rudisill
James H. Hurin	Joseph W. Kinley
J. A. Fairchild	Sidney J. Parsons
G. O. Newman	F. W. Edelsten
A. H. Judson	J. J. Gosper
B. Salazar	C. White Mortimer
G. W. Fox	Ed. L. Doheny
E. M. Wade	Frank Wiggins
E. E. Parsons	Merick Reynolds
C. J. McDivitt	Hervey Lindley
Richard A. Perez	H. F. Hartzell
John Stewart	Bradford Moore
Geo. W. Parsons	John Marchant
R. A. Falkenberg	O. T. Porter
C. H. Treat	L. A. National Bank
Richard Garvey	G. D. Bunch
Chas. G. Van Fleet	P. W. McGrath
F. H. White	E. T. Loy
Chas. Wier	E. K. Alexander
H. Z. Osborne	Colvin Egerton
F. S. Parry	Ralph Rogers
R. B. Taylor	H. B. Botsford
H. J. Stewart	W. H. Norway
J. W. Winston	R. D. Wade
W. E. Howard	Chas. L. Byam
M. P. Snyder	J. A. Hedge
A. J. Hechtman	W. H. Bailey
W. G. Spence	C. A. Bailey
Wm. Lacy Jr.	S. R. Porter
L. Jacoby	Al. Cameron

Geo. A. Montgomery	W. H. Adams, Jr.
A. G. Bartlett	H. R. O'Bryan
H. Jevne	C. A. Stilson
F. D. Lanterman	Wilber O. Dow
J. J. Lanergan	A. W. Kinne
John Bradbury	J. H. Canavan
F. La Strong	Osius Willis
Charles J. Barclay	G. A. Dobinson (The Investor)
H. G. Brooks, (The Times)	J. H. Humphreys, (Herald)
F. A. Blake	Geo. F. Granger
L. W. Morgan	G. J. Griffith
Craig, Stewart & Co.	Jos. Bumiller
F. J. Cooper	R. B. Dickinson
Nat. F. Wilshire	J. H. Phillips
R. W. Poindexter	John T. Gaffey
C. B. Boothe	Leonard Merrill
E. H. Barmore	H. W. Hughes
John M. Beckwith.	

Articles of incorporation of the Pinal Gold Mining and Milling Company were filed for record with the Gila county recorder at Globe, Ariz. The incorporators are: E. J. Edwards, M. W. Bremen, J. H. Thompson and John L. Alexander, all residents of Arizona. The amount of authorized capital stock will be \$500,000, of the par value of \$1 each, to be paid for at the time the same is issued and delivered, and shall be non-assessable thereafter. The commencement of corporation will be the 29th day of March, 1896, and the termination shall be twenty-five years from that date.

#### The Pelton Water Wheel Company

Of San Francisco are running their works to their full capacity. Among the more important installations recently completed are:

A 2000 horse-power plant for the San Juan Electric Company at Fresno; running under a head of 1400 feet.

A 3000 horse-power plant for the Regla Electric Transmission Company in Mexico; running under a head of 800 feet.

A 1200 horse-power plant for the Nevada County Electric Power Company; running under a head of 210 feet.

A 2500 horse-power plant for the Big Cottonwood Power Company, Salt Lake City; running under a head of 400 feet.

A 200 horse-power plant for the Tuolumne County Electric Company.

A 250 horse-power plant for the Santa Ysabel mine in Tuolumne county.

A 300 horse-power wheel, 18 feet 6 inches in diameter, for the North Star mine in Grass Valley; running under a 750 feet head.

A 500 horse-power wheel for a mining company in Japan.

They report also now under construction the following:

A 3000 horse-power plant for the Lota Electric Company in Chili, to run under 600 feet head.

A 1200 horse-power plant for the Boza Electric Company in Venezuela; to run under 400 feet head.

A 600 horse-power plant for Colorado Springs, Colo; to run under 800 feet head.

An 800 horse-power plant for the Big Creek Electric Company of Santa Cruz.

An 800 horse-power extension of the electric power plant at Redlands, Cal.

A pair of 400 horse-power hoist wheels for the Central Eureka mine in Amador county.

Also seven wheels of varying capacity for coffee and sugar plantations in Central America.

## PERSONAL-NEWS ITEMS

E. B. Gage left Prescott for Congress, Arizona, April 6th.

J. J. Gorpe has gone to Prescott, Arizona, to look after his extensive mining interests there.

Billy Murphy, foreman of the Planet Saturn mine, was in Prescott, Arizona, last week.

Mr. F. V. Johnston has quit working in the mines at Bisbee, Arizona, and has accepted a position in the store at that place.

Mr. M. G. Burns, the mining man of the Hassayampa, was in Prescott, Arizona, on April 3rd.

James Uncapher was in Kingman last week, from Mineral Park, where he has been operating the Queen Bee, with success.

Mr. H. W. Blaisdell, of Yuma, Arizona, was a caller at the JOURNAL office on the 10th inst. Mr. Blaisdell has some mining machinery he wishes to dispose of.

James Clark, of Bisbee, has gone to Pearce, Ariz., to look over that section, with a view of establishing himself there.

George D. Masters, son of Joseph W. Masters, treasurer of the Kassas Gold Mining Co., arrived in Globe, from New York City, March 28th. He expects to spend some time there.

Harry DeBow, one of the best known miners in the Territory, and at one time justice of the peace at Tempe, was in Phoenix, April 3rd. He is doing well chloriding in the vicinity of Frog Tanks.

T. L. Ayres has returned to Cerbat from the Walapai mountains, where he has been doing assessment work.

Mr. Howard Conger, of this city, has just returned from a trip to Yuma, Arizona, where he has been looking after some mining property he has in Gila county.

Lester Jackson, a Pima county mining man, arrived, April 8th, in Phoenix, Arizona, from Tucson, and has gone to the Luke & Kirkland mine, in Yavapai county.

Mr. Walter Mendenhall was in Prescott, Arizona, from his mining camp, at the head of Big Bug, the 6th inst.

Judge R. H. Baker and John A. Webb made a visit to Prescott, April 8th, from their "88" mining camp on the lower Aqua Fria.

J. P. Richardson was a caller at Bisbee, April 8th. Mr. Richardson has some claims in the Huachuca mountains.

Clifton Lewis, the Chaparral mining man, took a run into Prescott, Arizona, the 5th inst., for a brief visit.

Mr. J. Bogan was in Tucson, Arizona, from the Blanca mining district, April 7th.

Mr. Thos. R. Sorin was in Bisbee, on April 2nd, from Tombstone, Arizona.

Mr. R. B. Sawyer, of Monrovia, Cal., was a caller at the JOURNAL office on April 6th. Mr. Sawyer has some mining property in the Virginia Dale district, San Bernardino County.

S. B. Brillhardt left Las Cruces, New Mexico, for the Jicarillas, on mining business, April 1st.

Colonel Walter G. Marmon has gone to Bland, New Mexico, to begin work on several promising Cochiti properties in which he is interested.

Mr. E. H. Essery, an assayer from the City of Mexico, was on a business trip to the Southern part of the Puebla, in Mexico, the first part of last week.

Mr. J. M. Bell, a mining man of San Antonio, Texas, was a visitor in the City of Mexico, on April 3rd.

Mr. A. R. Bryson, of Lower California, was a visitor at the JOURNAL office, the 14th inst. Mr. Bryson has some rich specimens of gold ore from his mines on the Gulf side of Lower California.

J. J. Hall, a miner from Mogollon, N. M., was a visitor in Silver City last week.

H. J. Hutchinson, of Central New Mexico, was circulating among his old friends in Silver City, the first of the month.

Mr. Frank M. Mott, of Perris, was visiting Riverside, Cal., Monday, April 13th.

Mr. Robert S. Towse, of the Compania Metallurgica Mexicana, of San Luis Potosi, was a visitor in the City of Mexico, on the 12th inst.

Mr. Joseph Knowland, of San Bernardino, Cal., has gone to Arizona on a mining expedition.



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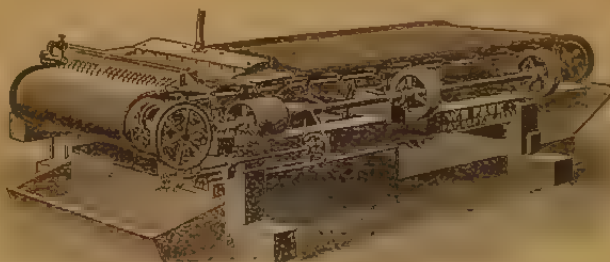
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Centennial .....	2.00	Wolverine .....	8.75

### COLORADO SPRINGS STOCKS

Anaconda .....	59	Mollie Gibson ..	59
Blue Bell .....	85 1/2	Matosa .....	18
Colfax .....	05	Mount Rosa .....	18
Columbine .....	03 1/2	Ophir .....	10
Fanny Rawlins ..	10	Orphan Bell .....	13
Gold King .....	53	Pharmacist .....	17 1/2
Gold and Globe ..	22	Summit .....	25
Isabella .....	52	Vera .....	16
Jack Pot .....	03	Wor d .....	02
Jetterson .....	18	Del Monte .....	03 1/2
Monarch .....	08		

### DENVER STOCK REPORT

Alamo .....	08 1/2	Anaconda .....	59
Amity per M .....	1	Aola .....	03
Bankers .....	60	Big Six .....	06 1/2
Crescent .....	10	Boston & Id .....	17
C. C. Con .....	13	Colfax .....	05
Chimbarazo .....	3	Gold & Globe ..	20
C. & O.C. .....	08	Mollie Gibson ..	55
Golden Fleece ..	1.03	Mt. Rosa .....	18
Gold Standard ..	09	Pharmacist .....	16
Isabella .....	50	Union Gold .....	44

### HELENA, MONTANA

Alice .....	25	Granite Mount ..	2.00
Bald Butte .....	3.65	Hope .....	1.50
Benton Group ..	10	Iron Mountain ..	45
Bi-Metallic .....	3.60	Ontario .....	1.00
Elizabeth .....	10	Peorman .....	40

### NEW YORK.

Crown Point .....	35	Sierra Nevada ..	65
Con. Cal & Va. ..	2.10	Standard .....	2.75
Gould & Curry ..	40	Union Con .....	40
Hale & Norcross ..	1.25	Iron Silver .....	10
Homestake .....	50.50	Quicksilver .....	3.00
Mexican .....	50	Quicksilver pfd ..	17.02
Ontario .....	11.50	Bulwer .....	12
Ophir .....	1.30	Yellow Jacket ..	35
Plymouth .....	20	Deadwood .....	45

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Alta .....	12	Mono .....	15
Belcher .....	24	Nevada Queen ..	30
Best & Belcher ..	75	Ophir .....	1.25
Bodie Con .....	35	Potosi .....	45
Chollar .....	40	Savage .....	35
Con. Cal & Va. ..	1.50	Sierra Nevada ..	65
Crown Point .....	1.25	Union Con .....	65
Hale & Norcross ..	1.25	Utah .....	10
Mexican .....	45	Yellow Jacket ..	35
Gould & Curry ..	35	Bulwer .....	12

### ST. LOUIS.

American Nettle ..	25	Elizabeth .....	20
Granite Mt. ....	2.00	Leo .....	3
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Bi-metallic .....	3.30	Small Hopes ..	70

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Appex .....	07	Mammoth .....	2.15
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Bull He. ....	6.50	Mex .....	55
Cane Springs .....	30	New Tiotie .....	2.80
Cent. Eureka .....	65.00	Ningara .....	2.25
Clove. Con. ....	45	No. Eureka .....	05
Crescent .....	15	North Spy .....	2.40
Comstock .....	04	Ontario .....	12.00
Dalton .....	50	Silver King .....	14.25
Daly .....	7.50	Silver Spar .....	1.00
Daly West .....	6.70	Tetro .....	10
Elko .....	20	Utah .....	1.20

### MEXICO

Name of Company	State	Price
Agustina .....	Guerrero	\$ 850
Asturiana y Anexas	Zacatecas	430
Cerro Colorado ..	Chihuahua	10
Concepcion y Anexas	S. Luis Potosi	100
El Oro .....	Guerrero	100
do pre .....		100
Luz de Llorca .....	Michoacan	30
do Free stock ..		30
Luz de Maravillas ..	Hidalgo	250
Real del Monte ..		1,100
Rosario y Anexas ..	Durango	80
do prof .....		90
San Rafael del Oro ..	Guerrero	800
Sita. Gentr y Anexas	Hidalgo	15
do Free Stock ..		15
Sic. Maria de la Paz	S. Luis Potosi	400
Tiauzingo .....	Puebla	40
Zomelahuacan (gold)	Vera Cruz	100
Zona Min. de Fosca	Guerrero	80

Notes—The above Mexican stocks are figured on the basis of Mexican silver.



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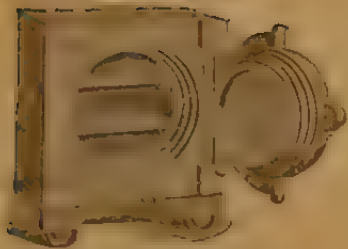
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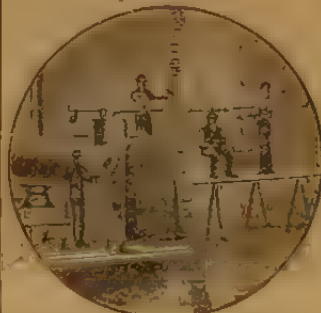
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NAMES OF MINES	LOCATION	No. of Shares	Capital Stock	Par Value	Amount of last Dividend	Date of Last Dividend	Total Amount Paid in Dividends	Kind of Mineral Produced
Adams	Colorado	150,000	\$ 1,500,000	\$ 10	\$ 0 04	October 1895	\$ 693,500	S, L, C.
Alaska, Treadwell	Alaska	200,000	5,000,000	25	37½	January, 1896	2,750,000	G.
Etna Consolidated	California	100,000	500,000	5	10	March 1896	50,000	Q.
Aspen Mining and Smelting Co.	Colorado	200,000	2,000,000	10	10	July 1894	900,000	S, L.
Bald Butte	Montana	250,000	250,000	1	03	December 1895	437,500	S, G.
Bangkok-C-Bell	Colorado	600,000	600,100	1	00½	November 1895	101,510	S, L, C.
Bellevue	Idaho	125,000	1,250,000	10	10	January 1893	200,000	S, L.
Bodie Consolidated	California	100,000	10,000,000	100	25	December 1894	1,677,572	G.
Boston & Montana	Montana	125,000	3,125,000	25	2 00	February 1896	3,725,000	C, S.
Caledonia	Dakota	100,000	10,000,000	100	08	October 1890	192,000	G.
Calumet & Hecla	Michigan	100,000	2,500,000	25	5 00	March 1896	44,850,000	G.
Centennial Eureka	Utah	30,000	1,500,000	50	1 00	February 1896	1,530,000	S, L.
Champion	California	3,400	34,000	10	10	August 1895	216,900	G.
Coeur D'Alene	Idaho	500,000	5,000,000	10	08	June 1895	340,000	S, L.
Colorado Central	Colorado	275,000	2,750,000	10	05	April 1893	502,661	S, L.
Commonwealth	Nevada	100,000	10,000,000	100	20	November 1890	20,000	S.
Consolidated, California and Virginia	Nevada	218,000	21,600,000	100	25	March 1895	3,952,800	S, G.
Coptis	Nevada	100,000	10,000,000	100	01	Feb. 1895	68,000	.....
Copper Queen Consolidated	Arizona	200,000	2,000,000	10	25	June 1895	1,910,000	C.
Daly	Utah	150,000	3,000,000	20	25	May 1893	2,850,000	S, L.
Deadwood Terra	Dakota	200,000	5,000,000	25	05	September 1892	1,140,000	G.
De Lamar	Idaho	400,000	2,000,000	5	24	October 1895	1,722,000	G, S.
Dorbec B Gravel	California	100,000	10,000,000	100	05	March 1894	265,000	G.
Dexter	Nevada	100,000	1,000,000	10	25	July 1893	145,000	G, S.
Elkhorn	Montana	200,000	1,000,000	5	12½	May 1895	1,324,176	S.
Elkton	Colorado	500,000	500,000	1	01	December 1894	80,000	G, S.
Enterprise	Colorado	500,000	2,500,000	5	25	June 1893	850,000	S.
Eureka Consolidated	Nevada	50,000	1,000,000	100	25	January 1892	5,112,500	S, G, L.
Franklin	Michigan	40,000	1,000,000	25	2 00	January 1894	1,240,000	C, L.
Golden Reward	South Dakota	250,000	1,250,000	5	05	July 1894	100,000	G.
Gold and Globe	Colorado	750,000	750,000	1	00½	March 1895	9,375	G.
Granite Mountain	Montana	400,000	10,000,000	25	20	July 1892	12,120,000	S.
Great Western	California	50,000	5,000,000	100	25	November 1893	388,368	G.
Hecla Consolidated	Montana	30,000	1,500,000	50	50	December 1895	2,100,000	S, G, L, C.
Helena & Frisco	Idaho	500,000	2,500,000	5	02	April 1895	425,000	S, L.
Helena & Victor	Montana	200,000	1,000,000	5	25	May 1892	80,000	G, S.
Holmes	Nevada	100,000	10,000,000	100	25	April 1892	75,000	S.
Honestake	Dakota	125,000	12,500,000	100	25	February 1896	5,743,500	G.
Hope	Montana	100,000	1,000,000	10	10	January 1895	694,250	S.
Horn Silver	Utah	400,000	10,000,000	25	12½	January 1896	5,137,500	S, L.
Idaho	California	3,100	310,000	100	2 50	September 1893	5,489,000	G.
Iron Mountain	Montana	500,000	5,000,000	10	01-10	February 1896	415,000	S.
Jackson	Nevada	50,000	5,000,000	100	14	Feb. 1895	80,000	G, S.
Kearsarge	Michigan	40,000	1,000,000	25	1 00	Dec. 1895	120,000	C.
Kennedy	California	100,000	10,000,000	100	48	August 1895	2,734,000	G.
Leadville Consolidated	Colorado	40,000	4,000,000	10	03	February 1893	316,000	S, L.
Lexington	Montana	40,000	4,000,000	100	90	July 1893	652,200	G, S.
Maid of Erin	Colorado	600,000	3,000,000	5	02	November 1895	740,900	S, L.
Mayflower	California	80,000	1,200,000	20	10	December 1895	242,000	G.
Minnesota	Minnesota	165,000	16,500,000	100	1 50	April 1893	2,745,000	L.
Mollie Gibson	Colorado	1,000,000	5,000,000	5	05	January 1895	4,080,000	S.
Montana Lt	Montana	660,000	3,300,000	5	06½	October 1895	2,890,637	G, S.
Moose	Colorado	600,000	600,000	1	01	January 1896	186,000	S.
Morning Star	California	2,400	240,000	100	7 00	October 1895	446,400	G.
Moulton	Montana	400,000	2,000,000	5	05	February 1894	460,000	S, G.
Mt. Diablo	Nevada	50,000	5,000,000	100	30	November 1893	225,000	S.
Mt. Rosa	Colorado	1,000,000	1,000,000	1	10	Jan. 1895	10,000	G.
Napa	California	100,000	700,000	7	20	January 1896	760,000	Q.
New Gaston	Colorado	110,000	550,000	5	75	October 1892	1,877,500	S.
North Banner Consolidated	California	100,000	1,000,000	10	05	July 1891	20,000	G.
North Star	California	100,000	1,000,000	10	50	June 1893	450,000	G.
Nugget	Colorado	1,000,000	1,000,000	1	00½	Jan. 1895	10,000	G.
Omaha Consolidated	California	24,000	2,400,000	100	15	July 1894	97,200	G.
Ontario	Utah	150,000	15,000,000	100	10	February 1896	13,205,000	S, L.
Osceola	Michigan	50,000	1,250,000	25	1 50	January 1896	2,022,500	C.
Pacific Coast	California	15,000	1,500,000	100	1 00	July 1893	422,500	.....
Parrot	Montana	180,000	1,800,000	10	10	June 1894	1,589,000	C.
Plumas Eureka	California	140,800	1,408,000	10	18	October 1893	2,696,295	G.
Poorman	Idaho	300,000	3,750,000	125	15	September 1892	68,200	G, S.
Portland	Colorado	3,000,000	3,000,000	1	02	February 1896	685,000	G, S.
Quicksilver Pref.	California	43,000	4,300,000	100	1 25	June 1891	1,823,911	Q.
Quincy	Michigan	50,000	1,250,000	25	4 00	February 1896	7,870,000	C.
Red Cloud	Idaho	200,000	1,000,000	5	10	December 1892	153,000	S, L.
Rialto	Colorado	300,000	300,000	1	01	April 1892	50,250	G.
Richmond	Nevada	54,000	1,350,000	25	25	September 1893	4,386,780	S, L.
Rico Aspen	Colorado	1,000,000	5,000,000	5	02	November 1894	325,000	S.
Sierra Buttes	California	222,500	2,225,000	10	12	October 1893	1,550,933	Q.
Silver, Mg.	New Mexico	500,000	500,000	1	4 05	December 1891	300,000	S.
Small Hopes Consolidated	Colorado	250,000	5,000,000	20	10	October 1893	3,225,000	S.
Standard	California	100,000	10,000,000	100	10	June 1895	3,771,159	G, S.
Swansea	Colorado	60,000	600,000	10	10	September 1892	30,000	G, S.
Tamarack	Michigan	50,000	1,250,000	25	4 00	December 1895	4,670,000	C.
Trinity River	Colorado	500,000	500,000	1	.....	April 1894	87,500	G.
Union	Colorado	1,250,000	1,250,000	1	1 00	May 1895	27,740	S.
United Verde	Arizona	300,000	3,000,000	10	25	December 1893	562,500	C.
Victor	Colorado	200,000	1,000,000	5	10	February 1896	505,000	G.
Yankee Girl	Colorado	260,000	1,300,000	5	25	July 1891	520,000	S.

S, Silver. G, Gold. L, Lead. C, Copper. Q, Quicksilver. I, Iron.



## ORE TARIFF.

From Points in Mexico, New Mexico, Texas and Arizona, to  
El Paso, Pueblo, Denver and Kansas City.

## ATCHISON, TOPEKA &amp; SANTA FE R. R.

FROM	TO	Car Loads, in dollars and cents per ton of 2,000 lbs.			
		Ore & Concentrates.	Lead Bullion, valuation not to exceed \$500 per ton.	Base Metal, Copper Matte, Bar and Black Copper, valuation not to exceed \$300 per ton.	
		Valuation not to exceed \$50 per ton.	Valuation not to exceed \$100 per ton.	Valuation not to exceed \$300 per ton.	
<b>MONROE RAILWAY.</b>					
Guaymas, Mex.	El Paso	10.00	11.50	13.50	
	Pueblo	12.50	15.00	17.00	
	Denver	15.00	18.00	20.00	
	Kansas City	15.00	18.00	20.00	
	El Paso	9.50	11.00	13.00	
	Pueblo	12.50	14.00	16.00	
	Denver	14.00	15.50	17.50	
	Kansas City	14.50	16.00	18.00	
<b>OTIS.</b>					
	El Paso	9.00	10.50	12.50	
	Pueblo	11.50	13.00	15.00	
	Denver	13.00	14.50	16.50	
	Kansas City	13.50	15.00	17.00	
<b>TORREY.</b>					
	El Paso	9.00	10.50	12.50	
	Pueblo	11.50	13.00	15.00	
	Denver	13.00	14.50	16.50	
	Kansas City	13.50	15.00	17.00	
<b>HARMONVILLE.</b>					
	El Paso	8.50	10.00	12.00	
	Pueblo	11.00	12.50	14.50	
	Denver	12.50	14.00	16.00	
	Kansas City	13.00	14.50	16.50	
<b>PASQUELITA.</b>					
	El Paso	8.00	9.50	11.50	
	Pueblo	10.50	12.00	14.00	
	Denver	12.00	13.50	15.50	
	Kansas City	12.50	14.00	16.00	
<b>QUEROPHAB.</b>					
	El Paso	7.00	8.50	10.50	
	Pueblo	9.50	11.00	13.00	
	Denver	11.00	12.50	14.50	
	Kansas City	11.50	13.00	15.00	
<b>SANTA ANA.</b>					
	El Paso	8.50	10.00	12.00	
	Pueblo	11.00	12.50	14.50	
	Denver	12.50	14.00	16.00	
	Kansas City	13.00	14.50	16.50	
<b>MAGDALENA.</b>					
	El Paso	8.50	10.00	12.00	
	Pueblo	11.00	12.50	14.50	
	Denver	12.50	14.00	16.00	
	Kansas City	13.00	14.50	16.50	
<b>IMPERIAL.</b>					
	El Paso	8.00	9.50	11.50	
	Pueblo	10.50	12.00	14.00	
	Denver	12.00	13.50	15.50	
	Kansas City	12.50	14.00	16.00	
<b>NOGALIA, A. T.</b>					
	El Paso	5.50	6.50	8.50	
	Pueblo	8.00	9.50	11.50	
	Denver	9.50	11.00	13.00	
	Kansas City	10.00	11.50	13.50	
<b>CALABAZAS.</b>					
	El Paso	5.50	6.50	8.50	
	Pueblo	8.00	9.50	11.50	
	Denver	9.50	11.00	13.00	
	Kansas City	10.00	11.50	13.50	
<b>SANFORDA.</b>					
	El Paso	5.50	6.50	8.50	
	Pueblo	8.00	9.50	11.50	
	Denver	9.50	11.00	13.00	
	Kansas City	10.00	11.50	13.50	
<b>CRITTENDEN.</b>					
	El Paso	4.50	5.50	7.50	
	Pueblo	7.00	8.50	10.50	
	Denver	8.50	10.00	12.00	
	Kansas City	9.00	10.50	12.50	
<b>FAIRBANK.</b>					
	El Paso	4.50	5.50	7.50	
	Pueblo	7.00	8.50	10.50	
	Denver	8.50	10.00	12.00	
	Kansas City	9.00	10.50	12.50	
<b>TUCSON.</b>					
	El Paso	4.50	5.50	7.50	
	Pueblo	7.00	8.50	10.50	
	Denver	8.50	10.00	12.00	
	Kansas City	9.00	10.50	12.50	
<b>HENSON.</b>					
	El Paso	4.50	5.50	7.50	
	Pueblo	7.00	8.50	10.50	
	Denver	8.50	10.00	12.00	
	Kansas City	9.00	10.50	12.50	
<b>STELMA PASS, N. M.</b>					
	El Paso	4.50	5.50	7.50	
	Pueblo	7.00	8.50	10.50	
	Denver	8.50	10.00	12.00	
	Kansas City	9.00	10.50	12.50	
<b>LORDSBURG.</b>					
	El Paso	4.50	5.50	7.50	
	Pueblo	7.00	8.50	10.50	
	Denver	8.50	10.00	12.00	
	Kansas City	9.00	10.50	12.50	
<b>SILVER CITY.</b>					
	El Paso	2.50	3.50	5.50	
	Pueblo	5.00	6.50	8.50	
	Denver	6.50	8.00	10.00	
	Kansas City	7.00	8.50	10.50	
<b>HUDSON.</b>					
	El Paso	2.50	3.50	5.50	
	Pueblo	5.00	6.50	8.50	
	Denver	6.50	8.00	10.00	
	Kansas City	7.00	8.50	10.50	
<b>DEMING.</b>					
	El Paso	2.50	3.50	5.50	
	Pueblo	5.00	6.50	8.50	
	Denver	6.50	8.00	10.00	
	Kansas City	7.00	8.50	10.50	
<b>FLORIDA AND LAKE VALLEY.</b>					
	El Paso	2.50	3.50	5.50	
	Pueblo	5.00	6.50	8.50	
	Denver	6.50	8.00	10.00	
	Kansas City	7.00	8.50	10.50	
<b>NATT.</b>					
	El Paso	2.50	3.50	5.50	
	Pueblo	5.00	6.50	8.50	
	Denver	6.50	8.00	10.00	
	Kansas City	7.00	8.50	10.50	
<b>EL PASO.</b>					
	El Paso	1.50	2.50	4.50	
	Pueblo	4.00	5.50	7.50	
	Denver	5.50	7.00	9.00	
	Kansas City	6.00	7.50	9.50	
<b>LAS CRUCES.</b>					
	El Paso	2.00	3.00	5.00	
	Pueblo	4.50	6.00	8.00	
	Denver	6.00	7.50	9.50	
	Kansas City	6.50	8.00	10.00	
<b>RINCON.</b>					
	El Paso	2.00	3.00	5.00	
	Pueblo	4.50	6.00	8.00	
	Denver	6.00	7.50	9.50	
	Kansas City	6.50	8.00	10.00	

FROM

TO

Car Loads, in dollars and cents per ton of 2,000 lbs.

Ore Concentrates.

Valuation not to exceed \$50 per ton.

Valuation not to exceed \$100 per ton.

Valuation not to exceed \$300 per ton.

Lead Bullion, valuation not to exceed \$500 per ton.

Base Metal, Copper Matte, Bar and Black Copper, valuation not to exceed \$300 per ton.

A. T. &amp; S. F. R. R.

ATLANTIC &amp; PACIFIC RAILROAD

Engle, N. M.	El Paso	2.20	2.80	3.40	5.00
Crocker, " "	Pueblo	5.50	7.00	8.00	10.20
	Denver	7.00	8.50	10.50	11.40
	Kansas City	7.50	9.00	11.00	14.20
Lava, " "	El Paso	2.20	2.80	3.40	5.40
	Pueblo	5.20	6.70	8.00	10.00
	Denver	6.70	8.20	10.20	11.20
	Kansas City	7.20	8.70	10.70	15.00
San Marcial, " "	El Paso	2.40	3.00	4.50	5.60
	Pueblo	5.20	6.70	7.80	9.80
	Denver	6.70	8.20	10.20	11.60
	Kansas City	7.20	8.70	10.70	15.90
Carthage, " "	El Paso	2.60	3.20	4.70	8.00
	Pueblo	5.20	6.70	8.70	9.80
	Denver	6.70	8.20	10.20	10.80
	Kansas City	7.20	8.70	10.70	15.40
San Antonio, " "	El Paso	2.40	3.20	4.70	5.80
	Pueblo	5.20	6.70	8.70	9.80
	Denver	6.70	8.20	10.20	10.80
	Kansas City	7.20	8.70	10.70	15.20
Magdalena, " "	El Paso	2.80	3.60	5.10	6.20
	Pueblo	5.00	6.50	8.50	10.60
	Denver	6.50	8.00	10.00	11.60
	Kansas City	7.00	8.50	10.50	15.60
Socorro, " "	El Paso	2.60	3.20	4.70	6.00
	Pueblo	5.00	6.50	8.50	9.40
	Denver	6.50	8.00	10.00	10.80
	Kansas City	7.00	8.50	10.50	12.00
Albuquerque, " "	El Paso	3.00	4.00	5.50	7.00
	Pueblo	4.50	6.00	7.00	8.40
	Denver	6.00	7.50	9.50	10.20
	Kansas City	6.50	8.00	10.00	14.00
Bernalillo, " "	El Paso	3.20	4.20	5.70	7.20
	Pueblo	4.20	5.70	7.70	8.20
	Denver	5.70	7.20	9.20	10.00
	Kansas City	6.20	7.70	9.70	10.60
Wallace, " "	El Paso	3.40	4.40	5.90	7.40
	Pueblo	4.20	5.70	7.70	7.80
	Denver	5.70	7.20	9.20	9.60
	Kansas City	6.20	7.70	9.70	12.00
Los Cerillos, " "	El Paso	3.60	4.60	6.10	7.60
	Pueblo	4.00	5.50	7.50	7.80
	Denver	5.50	7.00	9.00	9.40
	Kansas City	6.00	7.50	9.50	12.00
Flagstaff, A. T.	El Paso	8.50	8.00	10.00	
Prescott Jct. "	Pueblo	7.50	9.00	12.50	14.00
	Denver	9.00	10.50	13.50	14.00
	Kansas City	9.50	11.00	13.60	14.00
Peach Spgs. "	El Paso	7.50	8.00	11.25	
Hackberry, " "	Pueblo	8.00	9.50	13.75	18.20
	Denver	9.50	11.00	15.20	18.40
	Kansas City	10.00	11.50	15.20	18.40
Kingman, " "	El Paso	7.50	8.00	11.25	
	Pueblo	8.00	9.50	13.75	18.60
	Denver	9.50	11.00	15.60	18.60
	Kansas City	10.00	11.50	15.60	18.60
Yucca, " "	El Paso	7.50	8.00	11.75	
	Pueblo	8.50	10.00	14.25	19.00
	Denver	10.00	11.50	15.80	19.00
	Kansas City	10.50	12.00	15.80	19.00
Needles, Cal.	El Paso	7.75	8.25	12.00	
	Pueblo	8.50	10.00	14.60	19.40
	Denver	10.00	11.50	16.20	22.00
	Kansas City	10.50	12.00	16.20	22.00
Fenner, " "	El Paso	8.25	8.75	12.75	
	Pueblo	9.00	10.50	15.25	20.00
	Denver	10.50	12.00	16.60	20.00
	Kansas City	11.00	12.50	16.60	23.20
Bagdad, " "	El Paso	8.50	10.00	13.75	
	Pueblo	9.50	11.00	16.50	20.70
	Denver	11.00	12.50	17.20	20.70
	Kansas City	11.50	13.00	17.20	24.00
Daggett, " "	El Paso	8.00	10.50	14.50	
	Pueblo	10.00	11.50	17.00	21.60
	Denver	11.50	13.00	18.00	21.60
	Kansas City	12.00	13.50	18.00	26.00
Barstow, " "	El Paso	8.00	10.50	14.75	
	Pueblo	10.00	11.50	17.25	21.80
	Denver	11.50	13.00	18.00	21.80
	Kansas City	12.00	13.50	18.00	26.00
Kramer, " "	El Paso	8.50	11.00	15.21	
	Pueblo	10.50	12.00	17.71	22.60
	Denver	12.00	13.50	18.37	22.60
	Kansas City	12.50	14.00	18.37	26.20
Mojave, " "	El Paso	10.00	11.50	15.75	
	Pueblo	11.00	12.50	18.25	22.60
	Denver	12.50	14.00	18.80	22.60
	Kansas City	13.00	14.50	18.80	26.20



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Especial Attention to Sampling by most Approved Processes.

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### Kendall Gold and Silver Extraction Co.

THE KENDALL PROCESS is the most efficient method of using cyanide for the extraction of precious metals from their ore; wherever this process has been adopted the result has been increased percentages of values recovered and saving of time; material reduction in consumption of chemical has also been demonstrated with respect to several classes of ores.

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Captain De la Mar has adopted the process at his Nevada Mines, where a 250-ton plant is being completed. He writes that he is saving 95 per cent. of his gold values, and regards the Kendall Process as the cheapest and best he is aware of for the treatment of gold ores.

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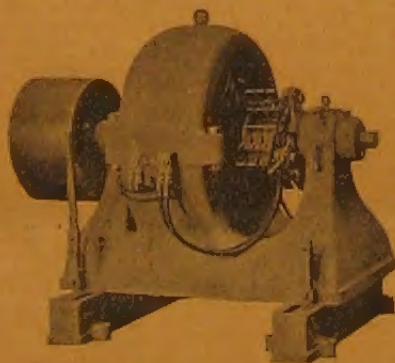
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47 Broadway, New York City

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ST. LOUIS,

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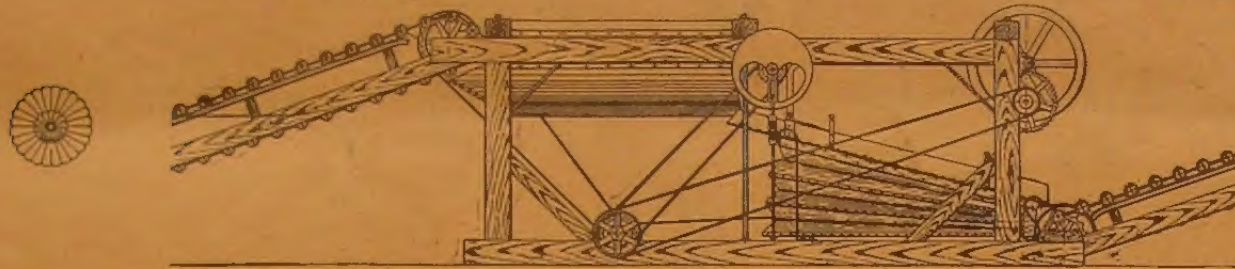
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LOS ANGELES, CALIFORNIA

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Water Works Machinery  
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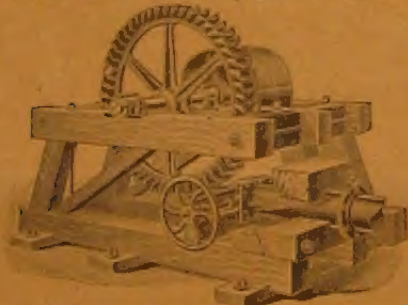
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